REMARKS/ARGUMENTS

Claim Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 10-12 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,278,786 to McIntosh ("McIntosh"). McIntosh states, "In another embodiment of the invention, the power of the DSP unit is utilized to supply signal processing for multiple *matched* headsets. FIG. 8 figuratively illustrates a portable aircraft intercom system comprised of a housing 25 which houses much of the electronics, including the DSP unit and, desirably, batteries for powering the system. A number of headsets 30 (four of them being depicted in the drawing) can be plugged into the housing 25 by means of conventional plugs 32. Each of the headsets 30 has its own earcup speakers and error microphones. Other electronic components, such as the summing amplifiers, analog cancellation filters, A/D and D/A converters, etc., can be located either in each of the respective headsets or in the housing, but preferably are located in the housing. By sharing the DSP unit among several headsets, costs for a multiple user system can be reduced while all users enjoy the benefits of the noise reduction ability of the system." (col. 5, lines 29-45) (emphasis added). The headsets of McIntosh are described as matching, and therefore have substantially the same acoustic properties. McIntosh therefore does not disclose "a plurality of headphones having different acoustic properties," as recited in claim 10. As is commonly known in the relevant art, "matched headsets" have transducers having substantially similar frequency response and therefore substantially similar acoustic properties. The Examiner states that, "McIntosh is capable of use for different headphones that including its own earcup speakers and error microphones that is considered with different acoustic properties." However, nothing in McIntosh can be said to teach or anticipate the headsets having different acoustic properties. Figure 8 of McIntosh just shows four identical headsets, and the only reference to them in the specification refers to them as "matched headsets," which implies they do not have different acoustic properties.

Furthermore, the Examiner cites the conventional compensation filter H_{comp} of McIntosh against the passive filter of claim 10 of the present invention. Regarding the compensation filter McIntosh states, "The error signal is provided to a conventional (nonadaptive) compensation filter H_{comp}, which receives the analog error signal and inverts it to generate an analog broadband noise cancellation signal. This cancellation signal is amplified by a variable gain amplifier 22, and the amplified analog cancellation signal is then provided to summing amplifier 24, the output of which drives the speaker 16 to cancel external noise which has penetrated the earcup 12." (col. 3, lines 41-48). A passive filter is a kind of electronic filter that is made only from passive elements -- in contrast to an active filter, it does not require an external power source (beyond the signal). The compensation filter of McIntosh inverts the analog error signal, which requires the use of an outside power source, since it is affected by the use of an operational amplifier. Since the McIntosh filter clearly requires the use of an outside power source, it must be an active filter. McIntosh does not disclose "a passive filter configured to modify the output of a sound transducer associated with the at least one headphone so that the filter provides a noise cancellation input signal for the noise cancellation circuit which is within the predetermined phase range," as recited in claim 10.
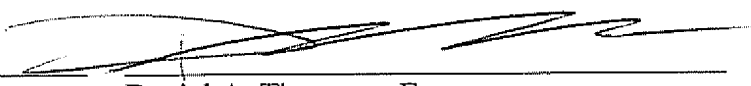
CONCLUSION

Applicant now believes that this amendment complies with 37 CFR § 1.121 and thus requests examination of this Amendment. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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